

7

BRIGHTON
HEALTH CONGRESS,
1881.

“The Seed-Time of Health.”

ADDRESS

BY

BENJAMIN WARD RICHARDSON,

M.D., LL.D., F.R.S.,

President of the Brighton Health Congress.

Printed by

G. W. MARKWICK, “GUARDIAN” OFFICE, 34, NORTH STREET, BRIGHTON.

1881.

Address
to the People of the United States
at the City of New York
on the 1st of January 1863

"THE SEED-TIME OF HEALTH."

IN the depths of the night, in a climate where night is short, in the midst of that short interval, when even the gods are supposed to rest; when the sun-god himself has withdrawn from the earth, and the sun sees not the deeds of men, some men and women of the earth, in solemn silence, bring something forth from home.

If they should speak there would flow from the lips of those people a language so beautiful, so perfect, so expressive, that though the listening ear were foreign to it and understood it not, it would be held listening. But there is not a sound.

If these people could be seen in their fair stature and build of body, draped in their loose garments, the eye, like the ear, would be vanquished. Such incomparable beauty! Should a sculptor want a model for a work he would leave for all time, he would find it in them; should a painter want a face for his perfected art, he would find it in them; should a poet want a theme for a song on living beauty, he would find his inspiration in them; should a physician want a text for a discourse on the types of health and sanity, he would find it in those types of beauty.

In those faces, which actually live to this hour in marble more precious than gold, there would be seen, if they were unveiled from this awful stillness and darkness of the night, two living passions, engraved in life through expression of the soul, resigned grief and sublime fear. What has happened can never be recalled, and grief, therefore, is chastened by reason: but what has happened is so

unnatural, so wrong, that reason, in its turn, is sublimed to fear. It is so terrible, none must look on it: if the sun-god, source of light and life, should see it, he might hide his face and punish all the races of mankind.

Well may there sit on every face the chaste beauty of resignation and sublimity of fear!

What can have happened?

There is something that is being carried tenderly, awfully! It is a casket small and light. It might be a cradle or a cot supporting some object of tender solieitude. A child! Yes, a child in all its childish wealth, its golden tresses on its pillow, its features divinely fair and spiritual, its limbs the ideal of grace. Surely in the dead of this night it sleeps, and they are taking it to some golden coast, where in the morning it will greet the sun, lave in the azure sea, listen to the shell picked up by the shore for the mysterious music, and bask in pleasure.

Alas! no. As the earth is now dead and silent, its soul of sun withdrawn, so is the soul of that human lovely form; and as the earth is proceeded to enter once more the eternal fire that at once animates it and destroys it, so this child of earth is being carried to the pyre.

Beyond expression terrible this event, that they, the bearers and followers, should be so ignorant as to let such beaming beauty die. Had it lived its course, played its mortal part, and like the ripe grain fallen fairly under the sickle of the immortal reaper, then, though a thousand suns had shone, the event had been natural, honourable. Then this ceremonial had been public as the day. Tears might have moistened the eyes of the lookers on, but there would be no shame; the deeds of the dead might be themes of honour, or fame, or joy; but shame, no trace of it. The shame is now; the shame that must be hidden in darkness of darkness, as a crime against knowledge, and love, and family, and country, and time! the shame that life in its earliest dawn should be let go, and run no Olympian game, and sing no song, and tell no history, and plant no work of art, and hold no standard, and fulfil no task of duty. They veil themselves from the truth that they may awake us from a deathly-dream. Let them pass from us also as a dream. Yet the dream is true, for I have embodied in these sentences an idea of mankind in that period of human history when, as by a miracle, the human soul burst into the flame which to this day is our great source

of intellectual light; the flame that in its own home went out, but from which, while it burned, all the world lighted a torch and carried it away.

While the sculptor of to-day still strikes a light from the dead of that period of intellectual glory, from the very marble into which its fervid life was infused for ever, let us who deal with actual life strike a light from the sentiment regarding the young who fell as they were rising from the drowsy torpor of infancy into the waking dreams of adolescence, instead of passing, in natural course, through manhood or womanhood, towards maturity, towards drowsy decline.

These wise people knew that life ought to be a perpetual feast. They not only knew the fact, they acted up to it. They were equally well aware that a long and perfect life could alone be attained by perfection of life at its opening, in the seed-time of health. To die at that time was, therefore, an offence against natural rule, against reason, against sentiment. The knowledge of such an event was death to the brain, death to the heart. In this seed-time of health the life was to be made, the life that was to be in truth a life worth living. Animals beneath men, that are worthy of going through their appointed time, and of being made both useful and beautiful, must have their seed-time of health. Shall their human masters be less cared for? If the masters are to be mere slaves, yes; and then it were a pity and a danger; for they who have no respect for life and beauty, who drag through existence and grow weary of it, are to be trusted neither with life, beauty, nor fame.

In the history of great truths derived from the Hellenic wise times, there is not one truth so great as this, and not one so completely missed. It is the secret that was lost. In our day we have lost it so severely that it might never have been in existence for ought we seem to care. The key to all we would have, the key to the gates of health and happiness, has been lost as if it had never been found.

In point of health our children in these times, proud as we are of these times, are our reproach. Where is there a healthy child? I have never seen one. I might search through the length and breadth of the island, I could not find one. You may put before me a child in all its innocence. It has done no wrong that it should suffer; it may show to the unskilled mind no trace of disease; and yet I know that if I or any skilled observer were to look into the history of the life in question it cannot be found intrinsically sound. It will have to battle with future dangers sufficient for the soundest

to meet; but it is not itself free from dangers other than those that are prospective and avoidable. It is sure to have some inherited failure, and too likely some that will help to increase the independent risks that lie before it.

So our children under five years are expected to die in what may almost be called a definite proportion. He is a fortunate man who, having four children born to him, retains three alive. Later on, for a short time, the danger is reduced; with adolescence it recurs. Again it retreats, but with such failure all along the line, that one-third of the allotted life, the life that would be were it planted in sound health, is only attained.

And for this we have no shame. The sun, the moon, and all the stars may witness our miseries, and we may grieve, but we have no shame. There is an assembly of learned men which I sometimes visit, an assembly of earnest men who are bent on understanding to the full these human failures from health. These men spare no pains, and to gain a spark of light will labour like miners in a mine. When last I visited them a puny feeble spark of life was in their presence undergoing their searching yet kindly scrutiny. Except that it cried a little and laughed a little in changing mood, this spark of life might have been considered a pathological specimen, and in truth it was discussed as such. No one there had a thought of that small life developing into wholesome life and passing through its natural term; not one was there who did not know that the chances of bare life were impossible, and that nothing could be done to save it. The intent was to study the pathology, and fix that by name. They said, when their technical language was translated, this child is suffering from the error, some would say the sin, of its parents. How deep did this error go? In what strange forms did it appear? How singular that the nervous system, once impressed with the poison of that error, should impress another nervous system, and so modify the nutrition of the organism to which it belonged as to cause false nutrition of internal organs and of the very bones themselves! In a whisper one of the learned expressed to another one the pity 'that such a specimen of humanity should ever have been born, to breathe and take notice, and smile, and cry, and love, and suffer, and die, and we be able to do nothing for it except hope for the relief that should end in the earliest death.'

I belong to a committee which takes under its care another class of sad childhood. The members of this community pass before us deaf

and mnte. We try to give them the powers of intelligent converse by laborious and artificial means, and we do some good ; bnt the train of sufferers passes by, and we know that full half are mnte from the undeveloped brain ; that they are practically lost to life. It is not that the one sense is lost, and thereby the means of expression by intelligible language ; it is not even that the nervous organisation which ministers to intelligenec is low ; it is that these defeienciies are some of the ontward signs of a general deterioration of body, and that there is scarcely a structure which the eye of seience would recognise as moulded in health.

Passing from the sphere of general observation, from modified to destroyed vitality, I find more startling facts at hand. A short unpretending essay reached me not long ago in which the writer, who in his too great modesty conceals his name, epitomises the facts he has collected respecting the attainment of maturity in peoples of different nations. He tells us that of ten children born in Norway a little over seven reach their twentieth year ; that in England and in the United States of America somewhat less than seven reach that stage ; that in France only five reach it ; and in Ireland less than five. He tells us that in Norway out of ten thousand born rather more than one out of three reaches the age of seventy ; in England one out of four ; in the United States, if both sexes be computed, less than one out of four ; in France, less than one out of eight ; and in Ireland less than one out of eleven. And, he adds this significant computation, based on what may be called the commercial view of the vital question. ‘ In producing dead machinery the cost of all that is broken in the making is charged to the cost of that which is completed. If we estimate by this same rule the cost of rearing children to manhood, if we calculate up the number of years lived by those who fell, with the years of those who passed successfully to manhood, there would be found between the two extremes presented in Norway and Ireland,—both, be it observed unnatural,—a loss of one hundred and twenty per cent. greater in the first year of life, seventy-five per cent. greater in the first four years of life, and one hundred and twenty per cent. greater in the years between the fifth and the twentieth, in Ireland than in Norway. In Norway the average length of life of the effective population is thirty-nine and rather more than a half years ; in England, thirty-five and a half years ; in France, not quite thirty-three years ; and in Ireland not quite twenty-nine years. Thus, again comparing the best with

the worst of a scale of vitality in which both are bad, in Norway the proportion of the population that reaches twenty survives nearly forty years, or four-fifths of the effective period, to contribute to the wealth of the community; while in Ireland the same proportion survives less than twenty-nine years, or considerably under three-fifths of the effective period.

When we are sitting in the family circle and are speaking of families that lie within our cognizance, we estimate in the most natural way the happiness of the families by the health they represent. We may thoughtlessly speak of other standards of measurement. We may for a moment dwell on the riches of the house; on the luxuries that are to be seen in it; on the influence which the owners of it might or do exercise in the social sphere, and such like sentiments. But, after all, these rest on health as the basis of the happiness. If one out of every two of the offspring of the favoured house have died, if some who have not died are mute to the world or otherwise stricken, we soon fall into more thoughtful mood, and say that even this rich home is not a possible home for happy life. Pleasures there may be, happiness there cannot be.

How much worse the estimate of a family in which, together with the vital failures, there is the lack of all that is necessary to make the burthen of life endurable. The favoured in health and means wonder, when they think of it, how such unfavoured endure the life they live. In that sentiment no maudlin canker lies; it is as hard and as free from poetry as a mathematical problem; and for that reason a sentiment that, above every other, is persistently preserved.

What is true of family circles is equally true of nations. Rest, quiet of nations, repose for cultivation of refined arts and sciences, happiness derived from healthy and vigorous minds and intended for healthy, vigorous, and wholesome purposes, there cannot be, when one in two of life can only reach maturity with a survival of three-fifths of effective population. In such a national family there is persistent mourning. It sits for ever in gloom; the blinds of its home are always drawn. It broods, it attributes, as all heart-stricken mourners do, the loss it has sustained to every imaginable and unimaginable cause. It thinks with incoherency; speaks now with hysteric grief, then with hysteric rage, and acts the same. In a word, it follows natural law. State physicians tender their remedies for such families of nations and call themselves curers, as if that could be cured which is Nature pursuing her merciless course towards her

merciful dispensations, in correction of those who have outraged her.

I have named this discourse "The Seed-time of Health," and in the sentences foregone I have tried to strike a contrast, and thereby to give to sanitation a broader meaning as a practical science than is commonly connected with it as a system of details respecting ventilations, sewer traps, and the like.

I want to point to health as the all-in-all to man; the gate of health, leading to the truly good in politics, art, science, letters,—aye, and religion, not less than the least of everything. The strain of my argument is, that, unless we make the early life of our children a seed-time of health,—unless we, from the root of life, so change the conditions which now exist,—all our other measures are practically valueless.

At this moment we have not, as a nation, got this notion set in our minds in such degree as even to accept it, basic as it is, as worthy of serious thought. We have no shame when our young fail and die. Grief we have, fond memories we have; but shame, none. We bury our young as if the act were natural, and erect memorials of it. We read obituaries of the young dead; we read the terrible obituaries of the Registrars-General; we discuss in Congresses like these the cost of young life; but the shame of the Greek touches us not. The knowledge of the troubles which flow from the lack of the shame reaches us not.

One bright Sunday morning I was in Dublin, in the Phoenix Park. A great crowd formed a vast ring, to the borders of which I made my way. A wrestling match! Men of different counties wrestling in deathly earnest, the lookers-on intent to terror. On not a face in that multitude, barring the faces of some four or five cockneys, who had a ear all to themselves, and grinned as foolishly as they chattered and chaffed, was there so much as a smile; the victors were approved, but not cheered. If this be sport, I felt, it is the strangest I ever knew since I read of Christian trying to be merry in the Castle of Giant Despair. In that same day I traversed the city to see authority armed to the teeth in utterly joyless open places. I visited an exhibition of pictures to experience the same sense of all-pervading oppression. I followed a crowd, and found myself one of another multitude going out of the city until we reached a place where the members of that multitude were burying their dead; and as they swept by the train of young dead that was carried in the sight of the sun to sleep in that resting-

place was to me as appalling as it was revealing. It was like lightning in persistent discharge. Peace, progress, content, happiness, with this discharge of fearful facts in view! A fable! 'As is the earthy,' says the priest, 'such are they also that are earthy;' and I knew that I had never understood the saying before.

It struck me for the first time, as I witnessed this painful phenomenon, that, with so much young death, there could no more be health in the body politic than in the body corporeal. We sanitarians are, however, only bound to treat of that which belongs to our own labours, and acknowledging the perils incident to early life, and it may be even recognizing the shame of them, have before us the question of their prevention from its health side alone.

That we may approach this task with intelligence, let us for a short time glance at the nature of the perils which beset the spring-tide of human life, and the period bounded by maturity.

The perils are of four kinds:—

1. Those that are inherited.
2. Those that are accidental.
3. Those that are inflicted.
4. Those that are acquired.

Inherited Perils.—Foremost amongst the perils to life, in all its stages, but especially in its early stages, are the inherited. We may safely say that no one is born free from taint of disease, and we may almost say with equal certainty, that there is no definable disease that does not admit of being called hereditary, unless it be accidentally produced. To what is known as specific disease, the disease of diseases; to struma, or scrofula, and its ally, if not the same, tubercular affection; to cancer; to rheumatism and gout; and to alcoholic degeneration, the grand perils of life are mainly due. These are the bases of so many diseases which bear different names; these so modify diseases, which may in themselves be distinct, that if they were removed the dangers would be reduced to a minimum. These diseased conditions do not, however, exhaust the list of fatal common inheritances. On many occasions, for several years past, I have observed, and maintained the observation, that some diseases, which are to be noticed in a coming page, as communicable, infectious, or contagious, are also classifiable under this head. I am satisfied that quinsey, diphtheria, scarlet fever, and even what is called drain fever, typhoid, are often of hereditary character. I have known a family in which four members have

suffered from diphtheria, a parent having had the same affection, and probably a grand-parent. I have known a family in which five members have, at various periods, suffered from typhoid, a parent and a grand-parent having been subject to the same disease. I have known a family in which quinsey has been the marked family characteristic for four generations. These persons have been the sufferers from the diseases named, without any obvious contraction of the diseases, and without having any companions in their sufferings. They were, in fact, predisposed to produce the poisons of the diseases in their own bodies, as the cobra is to produce the poisonous secretion which in its case is a part of its natural organisation.

Accidental Perils.—Next amongst the perils which beset the early life are the accidental dangers to which it is exposed. I do not mean by this the mere physical accidents, the troubles and blows to which childhood is subjected. Not these alone, but the more subtle accidents which are incurred through exposure to vicissitudes of season, and to the influence of those particles of the communicable diseases, which, being introduced into the body, incubate there, and transform the secretions of the body into poisons like unto themselves. A long list of diseases incident to the spring-time of life is found in these two classes of causes of diseases, those due to the contagious particles, numbering from twenty-five to thirty alone.

The grand mortality of the child-period is indeed due to the two classes of causes now under our consideration. From exposure to the vicissitudes of season comes, foremost of all, that first step into so wide a universe of evil, the common cold, or catarrh. Upon that comes the continuous visitation which, extending to the pulmonary surface, causes bronchitis, croup, pneumonia, tubercular inflammation; or, extending to the mucous surface of the intestine, causes irritation there, diarrhoea and choleraic affection. From exposure, again, to the poisons of the communicable diseases, there are produced the long and fatal calendars of diseases of shortest incubation, like cholera; of short incubation, like scarlet fever, diphtheria, erysipelas, influenza, whooping-cough, and croup; of medium incubation, like relapsing fever and cow-pox; of long incubation, like small-pox, chicken-pox, measles, German measles, typhus, typhoid, mumps, and malarial fever; and of longest incubation, like hydrophobia. The returns of the Registrar-General will show, weekly, how in persistent procession these diseases march through the land.

Inflicted Perils.—Third amongst the perils incident to the early life are those inflicted by reason of ignorance, or false knowledge and practice, or hard necessity, or all combined. These perils begin with the earliest days of infancy and continue onward. The tight swathing band in which the helpless infant is enrolled, as if it were an Egyptian mummy; the frequent error that is made in depriving it of its natural food, its mother's milk, and in substituting for that true standard of food, foods having no proper arrangement nor proper assimilable quality; the too hasty introduction to it of foods in common use in adult life; the not uncommon introduction even of stimulants to these young; the imperfect feeding of the mother, and pampering her with stimulants when she undertakes the maternal duty of being nurse to her own child; the poisonous method of giving soothing or narcotic quieteners to children; the almost as injurious plan of taking up children from their gentle life-giving sleeps and exposing them to shocks, surprises, and excitements, that are injurious to every function of nutrition and of mental repose; the confinement of the child in close rooms, away from the fresh midday air; the evil plan of taking it out into the night air and into crowds and noisy places, like the railway station or busy thoroughfare; the worse plan still, of scolding, frightening, and even slapping, the helpless thing, and thereby implanting in it a nervous, irritable nature which it will never lose. These are the truly crying evils, which in earliest, dreamiest, and most eventful days and months of human life, plant, imperceptibly, their accursed strings into every day of life that is to follow. If young animals of lower life, that are to be bought and sold and made gross profit upon, were to be subjected to the same penalties, there would be such discomfiture in the selling of them that the reform of the manner would soon be accepted by the most ignorant salesman. It was so in the time of the insane traffic in human flesh and blood. The child of the choice slave, intended ultimately for the market, was often better nurtured in its infancy than the child of the man who owned it, and became a better specimen of humanity.

These evils inflicted on childhood in its first estate are, moreover, followed later on by other evils not less reprehensible, and by one worse than all, I mean the evil of endeavouring, during the time when all the nervous force the growing frame demands is barely sufficient to sustain the natural wants of nutrition, to tax that growing frame beyond the powers that belong to maturity, with

competitive mental and physical labours. Both good in their way in moderate form, both necessary for health in moderate form, mental and physical labours are, in these days, made the bane of the nation. The false and useless efforts which crumple up the animal and spiritual natures, making distaste for all labour an early disease, and blighting every flower of genius so soon as it begins to bud, is equal in falsity only with the conviction it engenders, that men and women are made but to learn up to the time of maturity, and that an education which is not what is called "finished" when the school or college is left behind, is an education that can never be made up in after life. I know nothing so deathly to mind and body as this anxiety, now all but national in its acceptance, to complete education within twenty-one years, when the fact really is that length of life, and length of happy life, depend on the continued cultivation of mental and physical existence beyond all else.

He who has ceased to learn begins to die.

Schools for boys and girls, do you say? 'Yes,' I reply; 'and schools for men and women through every phase of life, if you would have them complete their career.' That crystal brain of the young man, surcharged with more than it can bear, will discharge itself abruptly and remain an empty shell. But the crystal brain, always crystal, slowly charged and sedately assimilating, will retain its natural lucidity and power through every stage, and will animate to its natural termination the body to which it is the ministering spirit.

And still to this grand evil inflicted on youth there is a supplemental evil which adds physical to mental seathing, viz., the commission of corporeal punishment on the helpless young before they know why that is wrong for which they are punished, and often when no wise man or woman could detect any wrong in any part of the savage performance save the wrong done by the one who punishes. To me, as a physician, nothing is more tainted with iniquitous injury than that corporeal punishment of children which proceeds to teach what is believed to be wrong by the instant infliction of physical pain. To the punished and the punisher alike the system is as mischievous as it is barbarous. On the punished it brands hate, or servility, or palpitating fear. On the punisher it brands coward, tyrant, hasty adjudicator of rights and wrongs; while it so perverts the judgment that he who would scorn himself if he struck a woman, will think the act right if a child be the object of his infliction. In another century it will sound as the tones of inquisitorial suffering

sound to this, that in our public schools, not masters merely, but masterful boys, should be trained, during the seed-time of health, to tund, to strike with ashen rods, their younger, feeblers fellows for faults or failings, or it may indeed be for virtues, which they themselves are not old enough to comprehend, nor wise enough to rectify, did they so much as comprehend.

Acquired Perils.—The perils acquired by the young themselves, acquired as a rule from imitation of the habits of their seniors, form a last part of the dangers incident to this seed-time. In boys, late hours, smoking, resort to the use of stimulants, indulgence in games of chance, and self-infliction of early worry, are special acts ruinous to the foundation of a long and healthy life. In girls, the passion for unhealthy systems of clothing; for compression of the too yielding chest in tight unyielding band and corset; the carelessness about clothing in cold weather; the desire to appear in late evening assembly; the recklessness about food and regularity of meals; the neglect of exercise, and the too frequent fondness of affectation in regard to good common-sense rules of manner and life, are, in their way, as mischievous as the errors committed by the juvenile male community, and in some respects lead more immediately to serious consequences.

We will, not, however, dwell longer on this theme, for the faults that might be included in it, were it extended to its full length, would, after all, be found to be but the reflected faults of older humanity; faults irreparable until that older humanity shows the way to those improvements in this direction, and in other directions to which it is now necessary to invite your attention.

I can imagine easily enough that some who are listening to the multiplied evils incident to the seed-time will shrink in despair from all hope of amendment. The sense of necessity of youthful death will seem for a moment to excuse the sense of shame. I hear one, sighing, say: if this be by design, it is vain to meet it. I hear another say: if this be by no design, but by, as it were, an universal accident or fortuitous occurrence, it were hopeless to try to meet it.

For my part, I am beset with no such doubts or fears. If I begin to think of design, the design I think of is poor mine; I am designing for the designer, and must come to grief. If I think of no design, I am merely building up something from the minds of those who conjure up design from their own designing. I, therefore, am content to feel assured that, while there is design in regard to this

mortal life of man, it is out of the range of my inadequate comprehension; I bow my head and say I do not know. And yet there are lines of thought resting on knowledge of natural facts in which the directions of the design of life are traceable; these are laid, first, in the observation of constantly recurring phenomena bearing on this subject; secondly, in the observation of those phenomena of sentiment or undemonstrated opinion which also bear upon the subject.

Touching, then, the actual recurring phenomena, we may, I think, discover from them most distinctly that the tendency of human life is always towards a more perfect condition; that the natural tendency is towards a more perfected life, and that when man himself does not, in ignorance or intention, do what is injurious to himself, natural law does not. Nature follows truly its own course, and gives us no help against ourselves; but the moment we see the right way she is with us in our efforts, and with giant power helps us on. We are not to natural law as so much inanimate matter; we stand above natural law as we stand above the brutes. As our divine Plato expresses it—'We are plants, not of earth, but of heaven; and from the same source whence the soul first arose, a divine nature, raising aloft our head and root, directs our whole corporeal frame.'

Towards this same view our sentiments converge. We compare all that is desirable to all that is healthy, and the *summum bonum* of our wishes is the *summum bonum* of health. We cling to the idea of a persistent life even beyond death: a life encrowned with such health that to be sick and to die is impossible. We cling to the idea of such a life in unmeasured happiness; a life devoid of pain and sorrow, a perfected health. We cling to the idea of such a life in realms of perpetual beauty: a life of the beautiful of beauties, health in its completed form and character.

Thus, in this instance, reason and sentiment are one, the surest proof of truth.

On the sentiment involved in the proposition I need not dwell: it thrills in every breast. On the reason I am bound to dwell, and if it be but in one instance, I should give proof of it. I will give one; a contrast of good and evil, of health and disease under human direction, and, I may say, under human control.

There were, some years ago, two communities existing at one time, and noted by an able observer. One community was at Montreux, a parish in the Canton of the Vaud, in Switzerland, a parish of two thousand eight hundred and thirty-three souls. The pastor, M.

Bridel, kept a life-history of his charge, and during a long series of years recorded births at the rate of one in forty-five, and deaths one in sixty-four annually, a death-rate of 15·62 in the thousand. The other community was a Russo-Greek, existing at the same period of time. In this community the births were one in seventeen, the deaths one in twenty-five, or at a rate of forty in the thousand. In the Switzer parish one sixty-fourth died per year; in the Russian, one twenty-fifth, or more than twice as many. In Montreux four-fifths of those born reached twenty years; in the Russian class, six hundred and six out of one thousand perished ere they had attained their fifteenth year, the nuptial garments of the mothers becoming, as it was said, the shrouds of the first-born. In the Swiss community the march of life, seemingly slow, was towards health and an improving life; in the Russian the march of life, seemingly so fruitful, if it had been calculated by the birth-rate alone, was the most fatal in Europe.

I would not, for my part, set up this Swiss parish as perfect—far from it; it was but half perfect. Still, the contrast is before us. Why did it exist? The answer was clear. The Swiss success was due to simple forethought and the virtue of continence. Those civilised peasants of the Vaud conserved their health, their happiness, their life, by the comparative slowness and circumspection with which their successive races were brought upon the scene of the world. Those uncivilised Russian-Greeks, reckless as to birth—not much more reckless than some great English towns have been in our time—lost their health, their happiness, their life, by their mad growth of life. With them death was the shadow of birth, and they had no shame. In our present day, in our best communities, though the reason for the shame is less than it was, yet still it is double, in the seed-time of health, what it ought to be, or what it need to be. That the reason for it diminishes is proof enough that it may diminish more; nay, may become refined to the delicacy of susceptibility of those who dared not let the sun behold their young dead.

How towards this perfection shall we wend our course?

We have seen that, in the seed-time of youth, there are four influences at work, sustaining the perils that bring the cause of shame. It is by carefully and earnestly correcting these that our course shall be towards success and honourable vitality.

To those *inherited* perils of which I have spoken our minds must first be turned. Say you, the task of reducing them is difficult,

delicate? It is all that. But it is not insurmountable in a world that has commenced to throw off its animal impulses, and to reason, and to believe, that 'from the same source whence the soul first arose, a divine nature, raising aloft our head and root, directs our whole corporeal frame.'

I know, and it is hopefulest knowledge, that I shall be listened to by thousands with attention and respect when I urge that, in regard to these inherited perils, wise men and wise women will soon begin to think, even in relation to the marriage tie, before they of a certainty inflict those perils on the world. And with this hesitation such good will come as I dare not express. Let it be known that there are certain marriages which must lead to intermarriages of disease of body or mind; let it be known that results of combinations of this kind are inevitable towards premature death; let it be known that results of combinations of this kind are as inevitable towards sickness and death as combinations of health are inevitable towards health and long life, and we cannot but feel sure that no perversity of folly can long continue to produce through birth the most fatal types of all the fatalities. Let hereditary health be once recognised as an element of the marriage contract, and the health and life of the nation will receive a lease that shall double the value of one and the duration of the other. I speak on this point not from simple enthusiastic hope, but happily from a knowledge singularly cheering. A short chapter of mine in 'Diseases of Modern Life,' entitled 'The Intermarriage of Disease,' has itself during the last six years been the means of checking many of what would have been most deplorable instances of these intermarriages.

While this reform lingers we have some direct means in our hands for lessening the extent of even propagated perils. The tendency of hereditary perils is towards removal when the influences which support them and nurture them are removed. By beginning early in life to place those who are born to peril in conditions for good life, it is astonishing how much can be practically done for them in their bad if not in their worst estate. Take as an example of this reforming service the Annerley Schools, where waifs and strays of society, born to all kinds of physical perils, are tended and trained in mental and physical arts. It is like a regeneration. The bloodless, the scrofulous, the rachitic, the rheumatic, predisposed by birth to these afflictions, burst out into such active life that the diatheses seem in abeyance. Nature, always pursuing her unchanging course, would

go with a bad system, no doubt, and cure the world of those affected by sweeping them from it, if they were left to their fate. Happily she goes also with those who work to save, and, aiding them, cures the world by restoring to it its life and re-endowing it with health.

In this cause and course the schoolmaster becomes the physician, and the more we have of this branch of the healing faculty the better for us all.

In the removal of the diseases by inheritance there are, then, two modes of treatment, the preventive and curative: preventive in wisdom of selection of parentage; curative in training those whom no prevention has blessed, into the choicest conditions for health in the seed-time of health.

There is yet another removable cause of these perils which I dare not, though I touch it with lightest finger, omit. It is indicated on the chart of sin and shame in dark, black, pall-like blot. It is the physical crime which men and women commit when in days of responsible life they acquire to themselves by intemperance and other terrible indulgences those inheritances of crime which pass to their children and proclaim their shame through them. If we could take the world, drowsy in ignorant lusts, and shake it into knowledge here, what crime and shame were saved in one generation, none can tell. I know the mass to be reformed is huge as the mightiest mountain, dense as lead. But faith and knowledge in steady action are all-potent even for overcoming this present overwhelming difficulty.

The accidental perils which beset the young in the seed-time of health, and which we accept as evils which sanitarians are bound specially to combat; those serious perils which spring from the exposure of the body to the poisonous particles which produce disease by contagion or infection, come next before us for removal. We call these perils contagious diseases; we call them plagues or pestilences, and, in respect to them, we have learned much that is accurate, and, I fear, much that is inaccurate. What is accurate is, however, the most important. We know the number of these diseases, we know that their number is limited, that it is confined to thirty at the most, and practically to little over half thirty. We know that the members of this class of diseases have different periods of incubation, that is to say, of period intervening between the reception of the poison and the development of the symptoms produced by the poison. We know that the symptoms of the diseases, once developed, run a regular course. We know that some persons are more susceptible to

them than others. We know that, to a certain extent, one attack of suffering from many of the diseases is a cause of exemption from a future attack. We know that the diseases assume an epidemic or spreading character, and that each of them has its season in which its spread is so remarkable that its general course may be charted or outlined as connected with the time of weeks or months or years. And if, regarding the nature of the poisons which produce the diseases we know least and are most divided, we have, at all events, this precious knowledge, that the poisons themselves are removable and destructible, so that they lie within the range of human control.

What is more, we have the clearest demonstration that while the poisons of these diseases can be generated, cultivated, and disseminated, when the conditions for such generation, cultivation, and dissemination are present, they can also be prevented to such an extent that places which were their favoured homes can be made the places in which they cannot live.

When you enter a court of justice, to this day in some old country assize town, you see lying before my Lord Judge a bunch of rue. My Lord himself may not know what that bunch of rue means, and the man who cuts it and lays it out will give you, if you ask him, the strangest version of the ceremony. Some will rue the day when my Lord Judge comes down to try. That is true, many will rue the day; but the meaning is not there. That bunch of rue was once, not very long ago, the supposed antiseptic or purifier which interposed between my Lord Judge's nose and the fever-stricken prisoners at the bar before him. Once, not very long ago, the gaols from whence those prisoners were brought were the centres of the great pestilent disease, typhus. The men, stived up in those horrid dens, fed with air charged with their own emanations, and fed with food on which they starved, generated the contagion of disease. They were the cobras of society, secreting a poison worse than the cobra's, a poison volatile, subtle, deadly, that would diffuse into the air, and not spare my Lord himself if he came within the sphere of its influence. The gaols then were the foci of fever. But a change took place. Howard, who was as good a sanitarian as he was a philanthropist, and whose rules for the construction of sick hospitals remain model rules to this hour, proclaimed his mission. The gaols began to improve; one improvement of a sanitary kind followed upon another improvement; the results began to arrest attention, and the good that was being done increased and increased with every year. And now, what think you is the

triumph? The triumphant result is that in the gaols, the foci once of disease of the spreading kind and of worst types, spreading diseases cannot practically exist at all. We might lay roses before my Lord to-day instead of rue, or lay the rue on the dock instead of the bench, for the prisoner, in matter of risk from contagion, is actually safer than his judge.

I cannot overstate this lesson. If the homes of those who live in the seed-time of health; if the nursery, the schoolroom, the school dormitory, the playground, were only kept in the same state of physical purity as the model prison, the perils from the accidental diseases caused by infectious particles of diseases were soon removed, and the *immortelles* we see on the little graves so thickly laid in cemetery and churchyard were as little called for as the rue on my Lord's dais.

To you who are interested in the events that occur in the seed-time of health I press this lesson. I press it because of the truth it conveys, the plain, the practical truth, that the simplest means are all that are demanded for the removal of the most fatal of human foes. You are masters and mistresses yourselves of the position. Those shame-faced mourners who would not let the sun see their faults and sorrows, were not so much masters of the position, perchance, as you are; had not the dearly-bought experience that has been incurred for you. Shall you be less shamed than they when death from accidental causes which you could so largely control comes to your door or enters your domicile? Again I press this lesson, and there is need of it again, for yet another reason. Science in the main most useful, but sometimes proud, wild, and erratic, is lately proposing a desperate device founded on an hypothesis clever and specious, but not yet gilded with wisdom or proof, for the prevention of these infectious perils. She proposes to prevent one peril by setting up another. She would inoculate new diseases into our old stock in the anticipation that thereby the new diseases will put out the old. This may be called homœopathy on the grand scale; and if it goes on we may soon see the ranks of sanitarians divided into two ranks, as we see in medicine the regular and the homœopathic practitioners. I pray you be not led away by this new conceit of prevention. In infinitesimals the homœopathic principle may be harmless enough, and on the old adage,

Our doctor is a man of skill;
If he does you no harm, he will do you no ill.

It may sometimes seem to compare favourably with heroic methods of cure. But homœopathy on this grand scale, this manufacture of spie-and-span new diseases in our human, bovine, equine, and canine, perhaps feline, is too much to bear the thought of, when we know that perfect purity of life is all-sufficient to remove what exists, without invoking what now is not. I doubt, indeed, whether it were not better to continue in our present imperfect state than venture to make new additions of prophyleetic maladies; and content, with Hamlet's sage advice,

Rather bear the ills we have,
Than fly to others that we know not of.

By a few rules, in short, which all prudent and wise people may carry out in their own homes, the accidental perils of the seed-time may be kept from the homestead as easily as from the prison-house. Let every man and wife be their own sanitarians and make their house a centre of sanitation. Let in the sun, keep out the damp; separate the house from the earth beneath; connect the house with the air above; once, nay twice, a year hold the Jewish Passover, and allow no leaven of disease to remain in any corner or crevice; let the house cleanse itself of all impurities as they are produced; eat no unclean thing; come back to the first-fruits of the earth for food; drink no impure drink; wear no impure clothing; do no impure act; and all the good that science can render you is at your absolute command.

The perils incident to the seed-time of health which I have called *inflicted*, come before us as altogether removable. To remove them skill even is not demanded; nothing is demanded but common human nature and common human sense. That every mother should nurse her own child; that in the early days of life, before the consciousness is naturally developed, the blessed sleep of infancy should be allowed its natural course; that the senses should not be oppressed until they are duly developed; that the quickly breathing lungs should be fed with fresh air; that the yet feeble digestive organs should be supplied with simple food; that the growing body should be clothed in warm and loose garments; these, surely, are practices the simplest people can carry out, practices easier than most which now prevail. Again, that gentleness should be the law of treatment to the young, and that the mind should be taught to know before the body is taught to suffer, that surely is a practice which all can carry out; a practice which both for learner and teacher is easier and better than many

which now prevail. Once more, that the growing bodies of our youth of both sexes should be permitted to enjoy the full force of the growing power allotted to them; that such power should be permitted to play its part for their nutrition, so that the body may be endowed with its full maturity; that, surely, is a practice of letting Nature have her free course,—in other words, of letting well alone,—which all can follow much more easily than most practices that now prevail. Lastly, that the growing mind should be permitted its free and natural course to grow and grow throughout the whole term of its earthly life, and not be killed in its early career by the insane pressure of labours it is utterly unable to bear, or to apply if it could bear them; that, surely, is a practice simplest of all, most natural of all, and most certain for the promotion of intellectual and social advancement.

The fourth series of perils incident to the seed-time of health,—those which I have designated the *induced*,—are, like the last, entirely under human command. For them to be removed, however, a reform beginning with those who have passed the seed-time is the absolute necessity. These perils must cease, and can only cease, by the process of the younger learning what is right from the examples of the older and the wiser creations of humanity. While middle-aged and old men and women indulge in low and injurious luxuries and pleasures, which inevitably shorten and embitter existence; while these revel in intemperance, and break every sanitary law in the Decalogue and out of it, it cannot be expected that imitative youth will do less than follow in their staggering and bewildering footsteps. What now is wanted is the ideal of a new nobility. In the wild-boar days of human existence, in days when men, hardly emancipated from lower forms of life, crept out of their caves, their huts, their walled prisons, to see their nobler species go forth to exercise those rude arts of fighting, hunting, revelling, which formed the whole art of civilisation, there was a nobility which deserved the name, the representative of necessity. But now, when these arts have degenerated into mere childish imitations, mere apedoms of the great past, they are but injurious pretensions for nobility of soul and body. Once noble according to the spirit of their day, they are in this day ignoble. Gamblings and struggles for money, false fame, false hopes, false health, they kill the older, cripple the younger, pervert all. I say nothing but what is good of physical exercise; I would that every school were a gymnasium; I would that every man and woman could

ride well, walk well, and skilfully exercise every sense and every limb. I urge only that this example be set, that all exercises, whether of body or mind, be carried out in purest habitude and in accordance with the enlightening progress of the age.

Approaching now the close of my discourse, I find two applications of thought with which briefly to trouble you ; one general, the other local and connected with this passing hour. I have tried to bring before you the seed-time of health, the time when this humanity of ours, in body, mind, and spirit, is learning either to live well or to live ill, to live long or to live short, according to its life in the seed-time. I have shown how bad is the seed-time, how pressing the shame of it, and how shameless nevertheless. I have tried to show what are the elements of reform which in that seed-time are required. In general expression of thought I would, respectfully as earnestly, ask those who rule and govern us to look at this period of life as it is ; to make it their test object of good or bad government ; to assure themselves that when the death-roll of this period of life reports itself filling, filled, the government is bad, happiness out of the question ; peace, order, national greatness all impossible ; that when the death roll of this period is emptying, is emptied, all is well ; that life then promises to run its completed course, and peace, concord, and prosperity to accompany the health that is ensured.

But to you, Brightonians, I address myself specially. It may easily be your fate, if you will it so to be, to have less cause for shame than even those shrinking mourners of whom I drew a picture in my opening lines. You, planted by the silver sea, have now, in spite of yourselves, a health you do not of yourselves deserve. You, whose coats the breeze of the sea brushes, whose homes it of its own wild will cleanses, you are made for the work of tending those who are living in the seed-time of health. That specifically, in so far as your resources permit, is your great mission. You have called us sanitarians here to speak the truth that is in us. Let our meeting be useful, and the date from whence you move until the shame of mortal events the sun should never witness be felt whenever they occur. You have before you opportunities almost without parallel. You have Nature with you in all her freshness, expanse, and beauty. Learn her ways from herself. Embarrassed by no traditions of antiquarian treasures, you can pull down and rebuild as freely as you can build anew. You are already a school-ground of schools : let that be your abiding tradition, and make your town, in which the ideal of a model city was announced,

be the model Hygeiopolis itself, the common-health of the Commonwealth. Then your sons, proud of their aneestry, shall realise even here, that 'as is the heavenly, such are they also that are heavenly;' and approaching the Infinite Spirit, from whom all proceed and to whom all return, shall declare, not in words merely but in very deeds, that perfected consummation of sanitary principle:—'Thy will be done on Earth as it is in Heaven.'

